Docket No. 241154US0

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Yuuki TAUCHI, et al.

SERIAL NO: NEW APPLICATION GAU:

FILED: HEREWITH EXAMINER:

FOR: AG BASE ALLOY THIN FILM AND SPUTTERING TARGET FOR FORMING AG BASE ALLOY THIN FILM

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR 1.97

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:
Applicant(s) wish to disclose the following information.

REFERENCES

■ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.

☐ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.

☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

☐ Each item of information contained in this information disclosure statement was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.

☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

■ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

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SERIAL NO.: New Application

FILED: Herewith

FOR: AG BASE ALLOY THIN FILM AND SPUTTERING TARGET FOR FORMING AG BASE ALLOY THIN FILM

STATEMENT OF RELEVANCY

Reference AA and AB on Form PTO-1449:

These references are explained in the specification.

Reference AO on Form PTO-1449:

Japanese Pat. JP-A-2002-15464 (2002)
explained in the specification

PROBLEM TO BE SOLVED: To provide a reflecting layer or a translucent reflecting layer for an optical recording medium having a high reflectance and excellent in durability.

SOLUTION: The reflecting layer or the translucent reflecting layer comprises an Ag-base alloy containing >=0.5 at.% Cu and 0.5-3 at.%, in total, of at least one element selected from the group comprising Nd, Sn and Ge and/or >=0.1 at.% at least one rare earth element.

Reference AP on Form PTO-1449:

Japanese Pat. JP-A-7-315874 (1995)
explained in the specification

PURPOSE:To obtain a heat ray shielding glass, utilizing characteristics of an Ag thin film and improved in durability so as to be usable as a veneer without being processed into a double glazing, etc.

CONSTITUTION:This heat ray shielding glass is obtained by forming a thin film prepared by adding at least one element selected from the group consisting of Pd, Pt, Sn, Zn, In, Cr, Ti, Si, Zr, Nb and Ta in an amount of 5-20% expressed in terms of molar ratio to an Ag thin film, as necessary, together with other thin films on a glass substrate.

Reference AQ on Form PTO-1449:

Japanese Pat. JP-A-8-293379 (1996)
explained in the specification

PURPOSE: To provide a transparent laminated body having sufficient durability even in a long-term current-carrying or an inferior environment, and also a high visual ray transmissivity.

CONSTITUTION: In a transparent laminated body in which a transparent dielectric layer and a metal layer are laminated on a base in such a manner that the metal layer is nipped by the transparent dielectric layer, the metal layer consists of a metal layer mainly consisting of Ag and containing 0.5-5 atomic % or Pd to Ag, and the transparent dielectric layer mainly consists of an oxide of one or more metals selected from the group consisting of Zn, In and Sn.

Reference AR on Form PTO-1449:

Japanese Pat. JP-A-9-135096 (1997)
explained in the specification

PROBLEM TO BE SOLVED: To provide a transparent electromagnetic shielding substrate which can be manufactured at a low temperature at which plastic films are not damaged, exibits a high electromagnetic shielding effect and a high transmittane of visible light and hardly deteriorates with time.

SOLUTION: A transparent electromagnetic shielding substrate 1 is mainly comprised of a transparent substrate 10 consisting of a polarizing film and a transparent electromagnetic shielding film 20 consisting of three layers consecutively laminated on the transparent substrate 10: a transparent thin oxide film 21, a silver-based thin film 22 and a transparent thin oxide film 23. Since the transparent thin films 21 and 23 consist of a mixed oxide of an oxide of gallium and an oxide of an element which substantially does not make solid solution with silver, they can be formed at a low temperature by sputtering method or the like and can be prevented from deteriorating with time, because the chemical resistance and the water resisting property of the transparent thin films of oxide protecting the silver-based thin film are remarkably improved.

Reference AS on Form PTO-1449:

Japanese Pat. JP-A-11-231122 (1999)
explained in the specification

PROBLEM TO BE SOLVED: To provide a color filter which has light beam transmissivity for effectively reducing unnecessary electromagnetic wave radiation from a plasma display device and effective transmitting emitted light of a fluorescent body in a necessary band and to provide a plasma display device using the color filter.

SOLUTION: This color filter is manufactured by forming a black matrix 5, colored pixels 10 consisting of red colored pixels 2, green colored pixels 3, and blue colored pixels 4, and an overcoat layer 6 on one surface of a transparent substrate 1 made of a glass substrate, etc., and a transparent conductive film 20 consisting of three layers, i.e., a transparent oxide thin film 11, a silver- based thin film 12, and a transparent oxide thin film 13, an overcoat layer 14, and an electrode part 15 for connection on the other surface of the transparent substrate 1. The plasma display device is manufactured by using this color filter and the electrode part 15 for connection and the device housing the plasma display device are electrically connected and grounded.

Reference AT on Form PTO-1449:

Japanese Pat. JP-A-7-134300 (1995)
explained in the specification

PURPOSE:To provide a reflection-type liq. crsytal display device capable of bright screen display, with the display defect hardly caused and excellent in reliability.

CONSTITUTION:This reflection-type liq. crystal display device is provided with a backelectrode plate 1 having a light reflecting metallic electrode 12, an electrode plate 2 on the observer side opposed to the back electrode plate and having a transparent electrode 22 and a liq. crystal substance 4 sealed between both electrode plates. The metallic electrode 12 consists of a silver-alloy thin film contg. a metal (e.g. Mg) easier to oxidize than silver. The thin film of silver alloy is firmly attached to the glass substrates 11 and 21 constituting the back electrode plate as compared with the thin film of silver alone, the alloy is hardly aggregated by heating, and the damage of the metallic electrode or its release from the substrate is prevented because of its high hardness when the display device is assembled or operated. Accordingly, the desired reflection- type liq. crystal display is provided.

Reference AU on Form PTO-1449:

Japanese Pat. JP-A-9-230806 (1997)
explained in the specification

PROBLEM TO BE SOLVED: To obtain an electrode plate having conductive films which exhibit good electrical conductivity, change less with lapse of time and have excellent preservable stability by using a specific oxide mixture as the transparent oxide thin films to be formed on both surfaces of a silver thin film and patterning the films to the electrode patterns at which the respective thin films are positioned and aligned to each other.

SOLUTION: This electrode plate is composed of the silver thin film 11 formed of a silver metallic material and the first and second transparent oxide thin films 12, 13 respectively formed on the first and second surfaces of the silver thin film 11. Both of the first and second transparent oxide thin films 12, 13 are composed of the oxide mixture containing the first metal oxide material consisting of an indium oxide and a second metallic oxide material consisting of the oxide of the metal elements substantially having no solid son. region with silver. After the multilayered conductive films 10 are formed on a substrate SUB, a resist is formed to desired pattern shapes on the transparent oxide thin film 13 of the uppermost layer and is patterned by etching to the pattern shapes in which three layers of the thin films 11 to 13 are positioned and

Form PTO 1449 (Modified)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY DOCKET NO.	SERIAL NO.
LIST OF REFERENCES CITED BY APPLICANT		241154US0	NEW APPLICATION
		APPLICANT: Yuuki TAUCHI, et al.	
		FILING DATE: HEREWITH	GROUP

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	6,007,889	12/28/99	Han H. NEE			
	AB	5,948,497	9/7/99	Tukaram K. HATWAR, et al.			
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
	AL						
	AM						
	AN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	TRANSLATION NO
	AO	2002-15464	1/18/02	Japan		x
	AP	7-315874	12/5/95	Japan		x
	AQ	8-293379	11/5/96	Japan		x
	AR	9-135096	5/20/97	Japan		x
	AS	11-231122	8/27/99	Japan		x
	AT	7-134300	5/23/95	Japan		x
	AU	9-230806	9/5/97	Japan		x
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	
	AX	
	AY	
	AZ	☐ Additional References sheet(s) attached

Examiner	Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.